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15TH ANNUAL McGRAW-HILL SURVEY OF POLLUTION CONTROL EXPENDITURES, 1982-85

American business plans to increase its capital investment in pollution control equipment by 10% this year to $10.5 billion (Table I). If realized, these plans will likely translate into a "real" expenditure increase of at least 1%. By contrast, business expects total 1982 capital spending to drop 4.5% once inflation is taken into account.

Purchases of equipment used to combat air, water, and solid waste pollution rose 4% to $9.6 billion in 1981 from $9.2 billion in 1980. If the current 1982 investment target is met, pollution control expenditures will thus have risen two years in a row. Nonetheless, in real terms the level would still be below that of 1979 when capital expenditures for pollution control amounted to $10.4 billion (Table IV).

If the 1982 target is hit, it would also mean that the share of total capital spending allocated to pollution control would rise a bit to 3.2% (Table III)—the first increase since 1976 when pollution abatement took up 5.6% of capital investment (Table VI). Pollution's share of spending is projected to fall back to 3.0% after 1982.

These are the highlights of McGraw-Hill's 15th annual survey of firms' plans to buy pollution control equipment. The survey, conducted in March and April, drew responses from firms that account for

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one-third of the nation's total capital expenditures. Projections in this report represent spending for entire industries, and not spending for survey respondents alone.

One conclusion the survey points to is that business intends to put a priority on pollution abatement commitments this year while it cuts back on other investment. Thus, while companies plan to hike pollution control expenditures 10% in 1982, they foresee an overall capital expenditure rise of only about 4% (based on McGraw-Hill survey data). With capital goods inflation expected to run close to 9%, it means that real total capital spending will fall while real pollution spending will rise somewhat--if all plans materialize.

Even if pollution abatement expenditures do rise 10% this year, the survey seems to confirm that pollution spending is declining in relative importance. The survey found that investment for pollution abatement was about $9.6 billion last year--only 4% higher than in 1980, and lower than spending in any year from 1976 to 1979. In inflation-adjusted terms, pollution spending in 1981 was about a third less than it was five years earlier.

This decline in real pollution control capital expenditures during the last half decade reflects industry's closing of the gap between its environmental practices and those required by government regulation. If regulatory requirements are eased, or if they are merely kept at current levels, pollution control spending would likely continue to decline in importance relative to total capital spending.

Industry and Sector Spending

The largest capital expenditures for pollution control are planned by the electric utilities--$3.1 billion in 1982. If that target is hit, the industry's pollution control spending would be up from $3.0 billion in 1981. But this 4% increase is smaller than most industries are planning (Table I); and since electric utilities loom so large in total pollution abatement spending, the industry's small increase significantly pulls down the average for all business. Excluding electric utilities, business projects a 13% hike in pollution control capital spending.

Other industries with large pollution control capital budgets for 1982 include petroleum, chemicals, and mining--all are over $1 billion. The percent of these industries' total capital expenditures allocated to pollution control is also higher than the average (Table III). For petroleum it is 4.8%, for chemicals the share is 8.3%, and for mining it is 7%.

Manufacturers plan to increase pollution control capital spending by 13% in 1982, much higher than the 7% for nonmanufacturers. Besides the modest increase in electric utilities' plans, the relatively small increase for nonmanufacturers reflects a decrease in pollution control expenditures by railroads and only a small increase by communications and other.

The largest percentage increase in pollution control expenditures in 1982 is planned by rubber--up 102% to $127 million from $63 million in 1981. Other large percentage increases are projected by instruments (50%) and autos, trucks & parts (40%) among durable goods makers, and

by chemicals (46%) and paper and pulp (34%) among nondurable goods producers.

On the other hand, some industries plan to decrease investment for pollution control. They are food and beverages (-31%), stone, clay and glass (-26%), other durables (-12%), other nondurables (-20%), and petroleum (-2%) among manufacturers, and railroads (-11%) among nonmanufacturers.

From 1983 to 1985, manufacturers report that on average they will spend $6.96 billion a year on pollution control equipment--up 18% from planned 1982 levels. Nonmanufacturers, by contrast, expect to decrease their capital expenditures for pollution abatement--down 0.5% on average from 1982.

Air, Water, Solid Waste Spending

As usual, the largest portion of 1982 pollution control capital spending is slated for equipment used to reduce air pollution--$4.8 billion (Table II). But that represents only a 1.3% gain over 1981 air pollution expenditures, which exceeded 1980 spending but which was down 7.5% from 1979.

By contrast, spending on water pollution control is planned to rise 15.5% this year to $4.1 billion after rising only 3.5% last year. Water pollution control expenditures are also projected to grow much faster in 1983-85 than are air pollution control expenditures.

Spending on solid waste control fell 23% in 1981. In 1982, however, expenditures on equipment used to control solid waste pollution are planned to increase 28.5% to $1.6 billion from $1.3

billion in 1981. In 1983-85, firms plan to increase their expenditures on solid waste pollution control by 12.3% on average over 1982.

The relatively large increase in 1982 solid waste pollution spending results from large percentage increases planned by machinery, paper and pulp, rubber, and instruments producers. Large increases in purchases of water pollution control equipment are projected by rubber, stone, clay, glass, iron and steel, trade and services, and autos, trucks and parts firms.

Thus, the shares of water pollution and solid waste abatement spending in total investment for pollution control should increase in 1982, and also in 1983-85. For water pollution control, the share is put at 38.9% in 1982, and 41.3% on average in 1983-85. For solid waste pollution, the projected share is 15.3% in 1982 and 15.7% in 1983-85.

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NOTE: The other durables category listed in the tables includes lumber, furniture, jewelry, toys, and transportation equipment other than autos and aerospace. Other nondurables includes apparel, tobacco, printing and publishing, and leather.

TABLE I

INVESTMENT FOR POLLUTION CONTROL
(Millions of Dollars)

INDUSTRY	Actual 1981	Planned 1982	% Change 1981-82	Planned 1983-85 (Annual Average)
Iron & Steel	$ 415	$ 489	18%	$ 530
Nonferrous Metals	234	252	8	347
Electrical Machinery	132	163	23	185
Machinery	357	389	9	499
Autos, Trucks & Parts	150	210	40	306
Aerospace	138	143	4	138
Fabricated Metals	70	78	11	95
Instruments	128	192	50	233
Stone, Clay & Glass	157	116	-26	138
Other Durables	334	293	-12	319
TOTAL DURABLES	2,115	2,325	10	2,791
Chemicals	900	1,315	46	1,476
Paper & Pulp	328	440	34	589
Rubber	63	127	102	158
Petroleum	1,355	1,330	-2	1,541
Food & Beverages	342	235	-31	276
Textiles	77	83	8	86
Other Nondurables	55	44	-20	44
TOTAL NONDURABLES	3,120	3,574	15	4,170
ALL MANUFACTURING	5,235	5,899	13	6,961
Mining	983	1,124	14	1,545
Railroads	81	72	-11	141
Airlines	3	3	0	6
Electric Utilities	2,956	3,072	4	2,521
Gas Utilities	*	*	NA	*
Communications & Other	164	168	2	196
Trade & Services	142	197	39	203
ALL NONMANUFACTURING	4,329	4,636	7	4,612
ALL BUSINESS	9,564	10,535	10	11,573

* Less than $500,000
NA - Not Applicable

TABLE II

POLLUTION CONTROL EXPENDITURES - AIR, WATER, AND SOLID WASTE
(Millions of Dollars)

INDUSTRY	1981 Air	1981 Water	1981 Solid Waste	1982 Planned Air	1982 Planned Water	1982 Planned Solid Waste	% Change, 1981-82 Air	% Change, 1981-82 Water	% Change, 1981-82 Solid Waste	Planned 1983-85 Annual Average Air	Planned 1983-85 Annual Average Water	Planned 1983-85 Annual Average Solid Waste
Iron & Steel	$ 248	$ 147	$ 20	$ 225	$ 236	$ 28	-9.3%	60.5%	40.0%	$ 260	$ 250	$ 20
Nonferrous Metals	119	73	42	126	75	51	5.9	2.7	21.4	176	101	70
Electrical Machinery	37	83	12	49	92	22	32.4	10.8	83.3	54	103	29
Machinery	186	162	9	166	179	44	-10.8	10.5	388.9	248	161	90
Autos, Trucks & Parts	50	50	50	70	70	70	40.0	40.0	40.0	102	102	102
Aerospace	46	47	45	46	49	48	0.0	4.3	6.7	44	48	46
Fabricated Metals	22	29	19	20	39	19	-9.1	34.5	0.0	24	48	23
Instruments	34	65	29	64	69	59	88.2	6.2	103.4	78	85	70
Stone, Clay & Glass	92	55	10	59	51	6	-35.9	-7.3	-40.0	80	52	6
Other Durables	134	124	76	90	98	105	-32.8	-21.0	38.2	95	123	101
TOTAL DURABLES	968	835	312	915	958	452	-5.5	14.7	44.9	1,161	1,073	557
Chemicals	240	473	187	510	622	183	112.5	31.5	-2.1	575	701	200
Paper & Pulp	183	141	4	228	193	19	24.6	36.9	375.0	311	250	28
Rubber	26	27	10	33	61	33	26.9	125.9	230.0	41	76	41
Petroleum	653	644	58	607	660	63	-7.0	2.5	8.6	541	938	62
Food & Beverages	134	142	66	81	102	52	-39.6	-28.2	-21.2	97	123	56
Textiles	30	34	13	28	35	20	-6.7	2.9	53.8	36	29	21
Other Nondurables	18	18	19	14	15	15	-22.2	-16.7	-21.1	14	15	15
TOTAL NONDURABLES	1,284	1,479	357	1,501	1,688	385	16.9	14.1	7.8	1,615	2,132	423
ALL MANUFACTURING	2,252	2,314	669	2,416	2,646	837	7.3	14.3	25.1	2,776	3,205	980
Mining	297	451	235	341	464	319	14.8	2.9	35.7	469	668	408
Railroads	33	30	18	32	22	18	-3.0	-26.7	0.0	62	44	35
Airlines	1	1	1	1	1	1	0.0	0.0	0.0	2	2	2
Electric Utilities	2,107	618	231	1,946	835	291	-7.6	35.1	26.0	1,568	724	229
Gas Utilities	*	*	*	*	*	*	NA	NA	NA	*	*	*
Communications & Other	43	106	15	56	87	25	30.2	-17.9	66.7	68	98	30
Trade & Services	29	24	89	34	38	125	17.2	58.3	40.4	33	40	130
ALL NONMANUFACTURING	2,510	1,230	589	2,410	1,447	779	-4.0	17.6	32.3	2,202	1,576	834
ALL BUSINESS	4,762	3,544	1,258	4,826	4,093	1,616	1.3	15.5	28.5	4,978	4,781	1,814

* Less than $500,000
NA - Not Applicable

TABLE III

POLLUTION CONTROL EXPENDITURES AS PERCENT OF CAPITAL SPENDING

INDUSTRY	Actual 1981	Planned 1982	Planned 1983-85 (Annual Average)
Iron & Steel	13.1%	12.3%	12.3%
Nonferrous Metals	6.8	8.0	8.9
Electrical Machinery	1.3	1.5	1.6
Machinery	2.7	2.8	3.1
Autos, Trucks & Parts	1.5	1.5	1.7
Aerospace	2.1	2.2	2.3
Fabricated Metals	2.4	2.5	2.8
Instruments	5.6	6.8	7.6
Stone, Clay & Glass	5.0	3.6	4.0
Other Durables	4.9	4.7	4.7
TOTAL DURABLES	3.4	3.6	3.8
Chemicals	6.6	8.3	8.7
Paper & Pulp	4.9	6.7	7.6
Rubber	3.6	5.8	6.4
Petroleum	5.1	4.8	4.8
Food & Beverages	4.2	3.3	3.7
Textiles	4.9	5.3	5.0
Other Nondurables	0.8	0.6	0.7
TOTAL NONDURABLES	4.8	5.3	5.2
ALL MANUFACTURING	4.1	4.5	4.5
Mining	5.8	7.0	8.5
Railroads	1.9	1.8	2.3
Airlines	*	*	*
Electric Utilities	9.9	9.3	8.1
Gas Utilities	*	*	*
Communications & Other	0.4	0.4	0.4
Trade & Services	0.2	0.2	0.2
ALL NONMANUFACTURING	2.2	2.3	2.0
ALL BUSINESS	3.0	3.2	3.0

* Less than 0.1

TABLE IV

TOTAL POLLUTION CONTROL EXPENDITURES--HISTORICAL
(Millions of Dollars)

INDUSTRY	1967	1968	1969	1970	1971	1972	1973	1974	1975
Iron & Steel	$ 114	$ 105	$ 154	$ 168	$ 163	$ 132	$ 146	$ 180	$ 450
Nonferrous Metals	44	16	39	96	105	148	234	580	597
Electrical Machinery	31	95	52	80	70	79	130	89	132
Machinery	30	61	54	132	107	123	167	214	114
Autos, Trucks & Parts	114	53	99	128	162	198	429	456	191
Aerospace	13	23	35	25	30	42	87	30	77
Other Transportation Equipment	7	15	39	36	30	15	41	67	31
Fabricated Metals	26	46	43	52	85	104	130	109	213
Instruments	6	15	30	31	72	28	33	57	58
Stone, Clay & Glass	46	42	63	68	124	129	142	287	292
Other Durables	64	76	134	177	117	99	164	247	182
TOTAL DURABLES	495	547	742	993	1,065	1,097	1,705	2,316	2,337
Chemicals	92	109	135	166	268	368	432	472	679
Paper & Pulp	89	79	147	162	266	340	454	480	653
Rubber	7	10	9	49	43	60	96	47	56
Petroleum	97	159	242	310	469	513	594	526	1,228
Food & Beverages	41	22	61	100	127	171	228	536	213
Textiles	8	11	14	18	30	28	36	59	80
Other Nondurables	61	28	49	103	20	110	78	53	32
TOTAL NONDURABLES	395	418	657	908	1,223	1,590	1,918	2,173	2,941
ALL MANUFACTURING	890	965	1,399	1,901	2,288	2,687	3,623	4,489	5,278
Mining	55	49	99	108	75	147	252	323	500
Railroads	NA	NA	NA	31	21	27	47	51	58
Airlines	NA	NA	NA	20	10	52	194	178	23
Other Transportation	0	0	0	7	144	23	63	75	360
Communications	0	0	0	*	*	215	422	1,118	305
Electric Utilities	146	231	154	401	540	1,074	1,140	1,181	1,515
Gas Utilities	81	25	130	108	48	43	45	70	43
Trade & Services	0	0	0	179	445	480	592	860	555
ALL NONMANUFACTURING	282	305	383	854	1,283	2,061	2,755	3,856	3,357
ALL BUSINESS	1,172	1,270	1,782	2,755	3,571	4,748	6,378	8,345	8,637

NA - Not Available
* Less than $500,000

TABLE IV

TOTAL POLLUTION CONTROL EXPENDITURES--HISTORICAL
(Millions of Dollars)
(Continued)

INDUSTRY	1976	1977	1978	1979	1980
Iron & Steel	$ 620	$ 466	$ 436	$ 615	$ 503
Nonferrous Metals	402	547	253	182	247
Electrical Machinery	176	126	193	204	198
Machinery	227	435	281	231	200
Autos, Trucks & Parts	174	221	303	677	701
Aerospace	76	66	97	58	37
Other Transportation Equipment**	52	41	66	---	---
Fabricated Metals	250	144	150	119	99
Instruments	62	41	64	95	72
Stone, Clay & Glass	168	164	260	142	193
Other Durables	167	146	166	228	202
TOTAL DURABLES	2,374	2,397	2,269	2,571	2,452
Chemicals	999	855	651	744	961
Paper & Pulp	799	468	315	438	458
Rubber	75	195	120	102	49
Petroleum	808	1,053	753	1,151	877
Food & Beverages	350	266	376	218	200
Textiles	132	76	108	132	85
Other Nondurables	51	139	103	124	173
TOTAL NONDURABLES	3,214	3,052	2,426	2,909	2,803
ALL MANUFACTURING	5,588	5,449	4,695	5,480	5,255
Mining	513	1,617	1,092	182	194
Railroads	32	55	56	64	158
Airlines	21	37	31	112	75
Other Transportation**	253	97	74	72	--
Communications	352	242	318	309	80
Electric Utilities	2,156	2,356	2,143	2,959	2,592
Gas Utilities	127	173	69	44	*
Trade & Services	641	906	1,192	1,158	834
ALL NONMANUFACTURING	4,095	5,483	4,975	4,900	3,933
ALL BUSINESS	9,683	10,932	9,670	10,380	9,188

NA - Not Available
* Less than $500,000
** As of 1979, other transportation equipment is included in other durables. As of 1980, other transportation services are included with communications.

TABLE V

HISTORICAL POLLUTION CONTROL EXPENDITURES — AIR WATER, SOLID WASTE
(Millions of Dollars)

INDUSTRY	1970		1971		1972		1973	
	Air	Water	Air	Water	Air	Water	Air	Water
Iron & Steel	$ 70	$ 98	$ 84	$ 79	$ 71	$ 61	$ 65	$ 81
Nonferrous Metals	77	19	78	27	123	25	199	35
Electrical Machinery	38	42	36	34	37	42	59	71
Machinery	89	43	70	37	64	59	92	75
Autos, Trucks & Parts	86	42	101	61	117	81	236	193
Aerospace	15	10	22	8	24	18	54	35
Other Transportation Equipment	29	7	22	8	12	3	32	9
Fabricated Metals	25	27	65	20	64	40	51	79
Instruments	22	9	30	42	10	18	21	12
Stone, Clay & Glass	41	27	94	30	81	48	94	48
Other Durables	76	101	53	64	73	26	111	53
TOTAL DURABLES	568	425	655	410	676	421	1,014	691
Chemicals	78	88	118	150	159	209	174	258
Paper & Pulp	62	100	126	140	182	158	294	160
Rubber	31	18	20	23	30	30	69	27
Petroleum	140	170	250	219	340	173	379	215
Food & Beverages	45	55	54	73	83	88	120	108
Textiles	6	12	8	22	13	15	13	23
Other Nondurables	7	96	12	8	58	52	65	13
TOTAL NONDURABLES	369	539	588	635	865	725	1,114	804
ALL MANUFACTURING	937	964	1,243	1,045	1,541	1,146	2,128	1,495
Mining	69	39	36	39	97	50	194	58
Railroads	23	8	8	13	8	19	23	24
Airlines	17	3	10	*	48	4	194	0
Other Transportation	5	2	83	61	10	13	54	9
Communications	*	*	*	*	72	143	211	211
Electric Utilities	253	148	319	221	856	218	795	345
Gas Utilities	74	34	26	22	24	19	24	21
Trade & Services	90	89	274	171	280	200	500	92
ALL NONMANUFACTURING	531	323	756	527	1,395	666	1,995	760
ALL BUSINESS	1,468	1,287	1,999	1,572	2,936	1,812	4,123	2,255

* Less than $500,000

TABLE V

HISTORICAL POLLUTION CONTROL EXPENDITURES — AIR WATER, SOLID WASTE
(Millions of Dollars)
(Continued)

	1974		1975			1976		
INDUSTRY	Air	Water	Air	Water	Solid Waste	Air	Water	Solid Waste
Iron & Steel	$ 104	$ 76	$ 199	$ 172	$ 79	$ 428	$ 188	$ 4
Nonferrous Metals	400	180	468	54	75	323	41	38
Electrical Machinery	46	43	38	69	25	43	99	34
Machinery	119	95	49	54	11	133	77	17
Autos, Trucks & Parts	254	202	67	64	60	109	43	22
Aerospace	19	11	37	29	11	34	27	15
Other Transportation Equipment	67	*	17	7	7	14	9	29
Fabricated Metals	80	29	98	103	12	94	147	9
Instruments	28	29	25	27	6	15	34	13
Stone, Clay & Glass	180	107	162	70	60	129	31	8
Other Durables	158	89	138	35	9	94	56	17
TOTAL DURABLES	1,455	861	1,298	684	355	1,416	752	206
Chemicals	207	265	259	329	91	292	601	106
Paper & Pulp	284	196	405	239	9	258	419	122
Rubber	20	27	30	15	11	49	25	1
Petroleum	365	161	691	345	192	453	313	42
Food & Beverages	133	403	92	96	25	120	148	82
Textiles	33	26	26	42	12	26	88	18
Other Nondurables	33	20	23	8	1	20	21	10
TOTAL NONDURABLES	1,075	1,098	1,526	1,074	341	1,218	1,615	381
ALL MANUFACTURING	2,530	1,959	2,824	1,758	696	2,634	2,367	587
Mining	202	121	291	135	74	348	106	59
Railroads	16	35	11	41	6	6	23	3
Airlines	166	12	10	12	1	16	4	1
Other Transportation	43	32	199	111	50	140	93	20
Communications	536	582	87	130	88	48	234	70
Electric Utilities	715	466	999	400	116	1,462	507	187
Gas Utilities	42	28	20	9	14	72	47	8
Trade & Services	526	334	277	139	139	394	148	99
ALL NONMANUFACTURING	2,246	1,610	1,894	977	488	2,486	1,162	447
ALL BUSINESS	4,776	3,569	4,718	2,735	1,184	5,120	3,529	1,034

* Less than $500,000

TABLE V

HISTORICAL POLLUTION CONTROL EXPENDITURES -- AIR WATER, SOLID WASTE
(Millions of Dollars)
(Continued)

INDUSTRY	1977			1978			1979		
	Air	Water	Solid Waste	Air	Water	Solid Waste	Air	Water	Solid Waste
Iron & Steel	$ 234	$ 182	$ 50	$ 285	$ 148	$ 3	$ 457	$ 157	$ 1
Nonferrous Metals	363	173	11	202	28	23	86	53	43
Electrical Machinery	47	47	32	85	66	42	55	91	58
Machinery	204	204	27	139	109	33	84	140	7
Autos, Trucks & Parts	76	76	69	294	5	4	231	231	235
Aerospace	29	27	10	56	24	17	16	24	18
Other Transportation Equipment**	15	11	15	20	20	26	---	---	---
Fabricated Metals	97	45	2	90	41	19	53	35	31
Instruments	15	22	4	39	21	4	36	33	26
Stone, Clay & Glass	85	49	30	132	70	58	79	42	21
Other Durables	85	38	23	78	33	55	73	75	80
TOTAL DURABLES	1,250	874	273	1,420	565	284	1,170	881	520
Chemicals	277	513	65	251	334	66	299	326	119
Paper & Pulp	191	223	54	155	156	4	200	154	84
Rubber	131	56	8	91	11	18	56	24	22
Petroleum	495	495	63	320	340	93	636	450	65
Food & Beverages	102	133	31	131	163	82	87	93	38
Textiles	33	30	13	37	67	4	13	101	18
Other Nondurables	21	99	19	31	48	24	51	34	39
TOTAL NONDURABLES	1,250	1,549	253	1,016	1,119	291	1,342	1,182	385
ALL MANUFACTURING	2,500	2,423	526	2,436	1,684	575	2,512	2,063	905
Mining	358	1,200	59	494	241	357	60	62	60
Railroads	6	37	12	9	36	11	13	41	10
Airlines	20	13	4	19	8	4	65	29	18
Other Transportation**	56	41	*	34	38	2	33	37	2
Communications	54	162	26	71	213	34	69	207	33
Electric Utilities	1,579	689	88	1,188	883	72	1,808	1,006	145
Gas Utilities	88	83	2	24	36	9	8	34	2
Trade & Services	452	227	227	596	298	298	580	290	290
ALL NONMANUFACTURING	2,613	2,452	418	2,435	1,753	787	2,636	1,700	560
ALL BUSINESS	5,113	4,875	944	4,871	3,437	1,362	5,148	3,763	1,465

* Less than $500,000

** As of 1979, other transportation equipment is included in other durables. As of 1980, other transportation services are included with communications.

TABLE V

HISTORICAL POLLUTION CONTROL EXPENDITURES -- AIR WATER, SOLID WASTE
(Millions of Dollars)
(Continued)

INDUSTRY	1980 Air	1980 Water	1980 Solid Waste
Iron & Steel	$ 314	$ 155	$ 35
Nonferrous Metals	144	45	58
Electrical Machinery	78	67	52
Machinery	71	127	2
Autos, Trucks & Parts	350	175	176
Aerospace	16	12	9
Other Transportation Equip.	—	—	—
Fabricated Metals	33	58	8
Instruments	36	20	16
Stone, Clay & Glass	111	43	39
Other Durables	111	52	39
TOTAL DURABLES	1,264	754	434
Chemicals	316	428	217
Paper & Pulp	210	187	61
Rubber	8	27	14
Petroleum	388	464	24
Food & Beverages	48	78	74
Textiles	35	29	21
Other Nondurables	59	57	57
TOTAL NONDURABLES	1,064	1,270	468
ALL MANUFACTURING	2,328	2,024	902
Mining	125	10	59
Railroads	5	63	90
Airlines	27	28	20
Other Transportation**	—	—	—
Electric Utilities	1,394	947	252
Gas Utilities	*	*	*
Communications & Other	36	34	11
Trade & Services	209	317	309
ALL NONMANUFACTURING	1,796	1,399	741
ALL BUSINESS	4,124	3,423	1,643

* Less than $500,000
NA - Not Applicable

TABLE VI

POLLUTION CONTROL EXPENDITURES AS A PERCENT OF CAPITAL SPENDING--HISTORICAL
(Percent)

INDUSTRY	1967	1968	1969	1970	1971	1972	1973	1974	1975**	1976
Iron & Steel	6.0%	5.2%	8.4%	10.3%	12.8%	12.3%	11.7%	9.3%	14.9%	20.4%
Nonferrous Metals	4.0	1.4	3.7	8.1	10.3	15.3	18.0	28.3	27.5	20.4
Electrical Machinery	1.0	3.0	1.6	2.3	2.3	2.8	3.7	2.3	4.2	4.8
Machinery	1.0	2.1	1.5	3.5	3.4	3.8	4.2	4.1	2.3	4.1
Autos, Trucks & Parts	4.0	2.0	3.3	4.2	6.7	6.6	11.2	10.6	5.7	4.8
Aerospace	1.0	1.9	2.7	2.8	4.7	6.2	10.2	2.0	4.6	4.5
Other Transportation Equipment	2.1	4.4	5.4	5.0	6.2	2.0	4.3	6.4	3.5	4.8
Fabricated Metals	2.0	3.4	3.5	4.3	7.1	7.3	7.2	5.6	10.8	11.2
Instruments	0.9	2.0	3.5	3.6	9.0	3.2	2.9	4.8	5.5	5.5
Stone, Clay & Glass	5.0	4.7	5.9	6.4	13.2	9.6	9.0	17.5	17.6	9.0
Other Durables	4.9	5.0	7.0	9.2	6.4	4.8	6.5	9.0	7.5	6.3
TOTAL DURABLES	2.8	3.1	3.7	5.0	6.3	6.0	7.5	8.4	8.9	8.3
Chemicals	3.0	3.9	4.5	4.9	8.2	10.9	10.2	7.3	8.9	12.3
Paper	6.0	6.2	9.1	9.3	20.6	23.3	22.8	16.6	21.9	25.7
Rubber	1.0	1.0	0.8	5.3	5.4	5.8	6.2	3.0	4.8	5.7
Petroleum	2.0	3.2	4.6	6.0	9.0	10.7	12.7	7.2	12.8	7.5
Food & Beverages	2.0	1.0	2.2	3.0	3.8	5.2	6.3	13.3	5.3	7.3
Textiles	1.0	1.7	1.6	2.3	3.3	2.6	3.5	5.4	8.9	12.6
Other Nondurables	4.0	1.8	2.8	5.5	1.0	5.0	3.1	2.2	1.4	2.2
TOTAL NONDURABLES	2.7	2.9	4.0	5.3	7.3	9.2	9.8	8.4	10.3	10.2
ALL MANUFACTURING	2.8	3.0	3.9	5.1	6.8	7.6	8.9	8.4	9.6	9.3
Mining	4.0	3.4	5.6	6.1	2.8	5.1	7.6	7.0	8.2	6.9
Railroads	NA	NA	NA	1.6	1.2	1.6	2.2	1.9	2.0	1.1
Airlines	NA	NA	NA	0.7	0.7	2.4	9.3	9.2	1.4	1.8
Other Transportation	0.0	0.0	0.0	0.3	5.3	0.8	2.0	2.1	8.6	5.2
Communications	0.0	0.0	0.0	0.0	*	2.4	2.0	4.8	1.4	1.5
Electric Utilities	2.0	2.9	1.7	3.8	4.4	7.9	7.6	7.1	9.1	11.5
Gas Utilities	4.0	1.0	4.9	4.4	2.0	1.6	1.5	2.2	1.3	3.5
Trade & Services	0.0	0.0	0.0	0.6	1.3	1.2	1.3	1.8	1.2	1.3
ALL NONMANUFACTURING	0.6	0.5	0.6	1.2	1.7	2.4	2.9	3.7	3.3	3.7
ALL BUSINESS	1.4	1.4	1.8	2.6	3.3	3.9	4.6	5.3	5.5	5.6

NA - Not Available
* Less than .05%
**Solid waste is included starting in 1975.

TABLE VI

POLLUTION CONTROL EXPENDITURES AS A PERCENT OF CAPITAL SPENDING—HISTORICAL
(Percent)
(Continued)

INDUSTRY	1977	1978	1979	1980
Iron & Steel	16.7%	17.3%	19.9%	15.3%
Nonferrous Metals	29.1	12.0	7.6	8.0
Electrical Machinery	2.7	3.4	2.8	2.1
Machinery	6.6	3.9	2.2	1.7
Autos, Trucks & Parts	3.8	4.2	8.4	7.7
Aerospace	3.3	3.0	1.1	0.5
Other Transportation Equipment**	3.3	4.2	—	—
Fabricated Metals	5.8	5.2	3.9	3.3
Instruments	3.0	4.0	5.4	3.2
Stone, Clay & Glass	7.3	8.4	3.6	5.1
Other Durables	4.9	5.0	4.0	3.3
TOTAL DURABLES	7.0	5.6	5.0	4.2
Chemicals	10.5	7.7	6.9	7.6
Paper	13.0	7.9	7.9	6.7
Rubber	11.8	5.7	4.7	2.8
Petroleum	8.3	5.4	7.1	4.2
Food & Beverages	5.2	6.3	3.3	2.7
Textiles	6.0	7.8	8.8	5.2
Other Nondurables	5.1	3.0	2.6	2.9
TOTAL NONDURABLES	8.7	6.2	6.1	5.0
ALL MANUFACTURING	7.9	5.9	5.6	4.5
Mining	17.5	10.7	1.6	1.4
Railroads	1.8	1.6	1.6	3.7
Airlines	1.7	1.0	2.8	1.9
Other Transportation***	2.3	1.8	—	—
Electric Utilities	10.6	8.7	10.7	9.2
Gas Utilities	3.8	1.3	0.7	*
Communications & Trade & Services	1.3	1.5	1.3	0.7
ALL NONMANUFACTURING	4.3	3.3	2.9	2.1
ALL BUSINESS	5.5	4.2	3.8	3.1

NA - Not Available
* Less than 0.5%
** Solid waste is included starting in 1975.
*** As of 1979 other transportation equipment is included in other durables and other transportation services are included with communications and commercial.